



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072.644	02/08/2002	Victor Giurgiutiu	16139/09021	3274

7590 09/16/2004  
Lloyd G. Farr  
Nelson Mullins Riley & Scarborough, LLP  
P.O. Box 11070  
Columbia, SC 29211

EXAMINER
----------

SHAH, KAMINI S

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

10/072644

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

EXAMINER
----------

ART UNIT	PAPER
----------	-------

20040825

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Amendment filed 09/08/03 in response to Non-Final office action is non-responsive amendment. See attached office action for detail.

Kamini S Shah  
Primary Examiner  
Art Unit: 2863

***Election/Restrictions***

**DETAILED ACTION**

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-2 (cancelled), drawn to method of detecting damage within a feature, classified in class 702, subclass 35.
  - II. Claims 3-31 (newly added), drawn to method of detecting damage within a thin wall with use of generator operative to round-robin fashion and at frequency at 200 KHz, classified in class 702, subclass 159.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because: new claims includes new issues such as a generator operative to excite at least one said sensors to produce ultrasonic waves having a frequency of at least about 200 kHz in said structure; and said generator is operative to excite each of said sensors in said array in round-robin fashion; and ultrasonic waves are Lamb waves; and said signal processor is operative to determine a location of damage feature after round-robin excitation of all of said

Art Unit: 2863

sensors in array; and said wafer sensors have planar surface area no greater than approximately 169 mm<sup>2</sup> and a thickness no greater than approximately 0.49 mm.

The subcombination has separate utility such as a system utilizing arrays of very small piezoelectric wafer active sensors and are actuated in round robin fashion to produce rich matrix of information.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 3-31 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

7. The amendment filed on September 08 2003 canceling all claims drawn to the elected invention and presenting only claims drawn to a non-elected invention is non-

Art Unit: 2863


responsive (MPEP § 821.03). The remaining claims are not readable on the elected invention because it raises new issues.

Since the above-mentioned amendment appears to be a *bona fide* attempt to reply, applicant is given a TIME PERIOD of ONE (1) MONTH or THIRTY (30) DAYS, whichever is longer, from the mailing date of this notice within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD UNDER 37 CFR 1.136(a) ARE AVAILABLE.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamini S Shah whose telephone number is 571-272-2279. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kamini S Shah  
Primary Examiner  
Art Unit 2863

kss